AU 00/656

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hereby certify that annexed is a true copy of the Provisional specification in
connection with Application No. PQ 0885 for a patent by TENTAS
TELEHEALTH PTY LTD filed on 10 June 1999.

WITNESS my hand this
Twenty-ninth day of June 2000

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CYCLING EVENT AND AUTO-TRIGGER MEMORY HANDLING

The present invention relates to the field of monitoring a cardiac patient's electrical cardiac activity by means of a cardiac event recorder and, in particular, to the memory handling of such event recorders.

5 ## BACKGROUND TO THE INVENTION

Cardiac event recorders usually have only one type of memeory used for both manual and auto-triggered ECG recordings. Signal artifacts and noise can inadvertently cause a false triggering of the auto-trigger and thus fill the memory with useless information.

It would be advantageous to provide a method and apparatus which prevents the memory of
10 cardiac event recorders from being filled with useless information.

OBJECT OF THE INVENTION

It is an object of the present invention to provide a method and apparatus for the recording of an ECG which substantially overcomes or ameliorates the above mentioned disadvantages by preventing memory overflow.

15 ## DISCLOSURE OF THE INVENTION

According to one aspect of the present invention there is disclosed a method of recording into memory of a cardiac event recorder, said method including the steps of subdividing the memory into two parts, the two parts being a manual trigger memory and an auto-trigger memory, partitioning the auto-trigger memory into a plurality of auto-trigger recording
20 partitions, whereby in the event of a manual trigger, acquired signals are recorded continuously in said manual trigger memory and in the event of an auto-trigger, acquired signals are recorded continuously in said manual trigger memory and then copied into one of said plurality of auto-trigger recording partitions.

Preferably, the recording is done in cycling mode whereby the signal is continuously recorded in the manual memory thus providing a segment of pre-event recording prior to the manual trigger which records information of a predetermined length of time.

Preferably, if the recording is initiated by the auto-trigger, the cycling mode is not
5 terminated or interrupted.

Preferably, at least two manual trigger recordings are able to be stored in the manual memory.

Preferably, the manual trigger recordings are about 2 to 3 times longer than the auto-trigger recordings.

10 BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be now be described with reference to the accompanying drawing in which:

Fig. 1 is a diagram showing the memory of the cardiac event recorder.

BEST MODE OF CARRYING OUT THE INVENTION

15 When recording an ECG using a cardiac event recorder (not illustrated), the data is recorded into RAM 10 which is generally recorded cyclically, ie when the memory is full, the data overflows and records over the previously recorded data.

The RAM 10 is subdivided into two parts, ie a manual trigger memory 11 and an auto-trigger memory 12. The auto-trigger memory 12 is further partitioned into a number
20 of auto-trigger memory recordings 13.

In this cyclic recording mode, the data is continuously recorded into the manual trigger memory 12 and thus when a manual trigger is received, this fact is recorded. The data recorded after a manual trigger is then stored in the manual trigger memory 11 with at least

two manual triggered recordings be stored in the manual memory. In this cyclic memory mode, a segment of pre-event recording is also stored in the manual memory 11.

If an auto-trigger function initiated the trigger, the cycling mode is not terminated or interrupted (unlike the manual trigger). After the duration of the auto-triggered event which

5 is recorded in the manual memory 11, it is copied into one of the partitions 13 of the auto-trigger memory 12.

The foregoing describes only one embodiment of the present invention, and modifications obvious to those skilled in the art can be made thereto without departing from the scope of the present invention.

10 DATED this TENTH day of JUNE 1999
TENTAS TELEHEALTH PTY LTD

Patent Attorneys for the Applicant
WILSON & YOUNG

MANUAL CYCLING
MEMORY

10

COPY
TO AUTO-TRIG
MEMORY

AUTO-TRIGGER
MEMORY

AUTO
TRIG
1

13

TOTAL
DURATION
OF AUTO
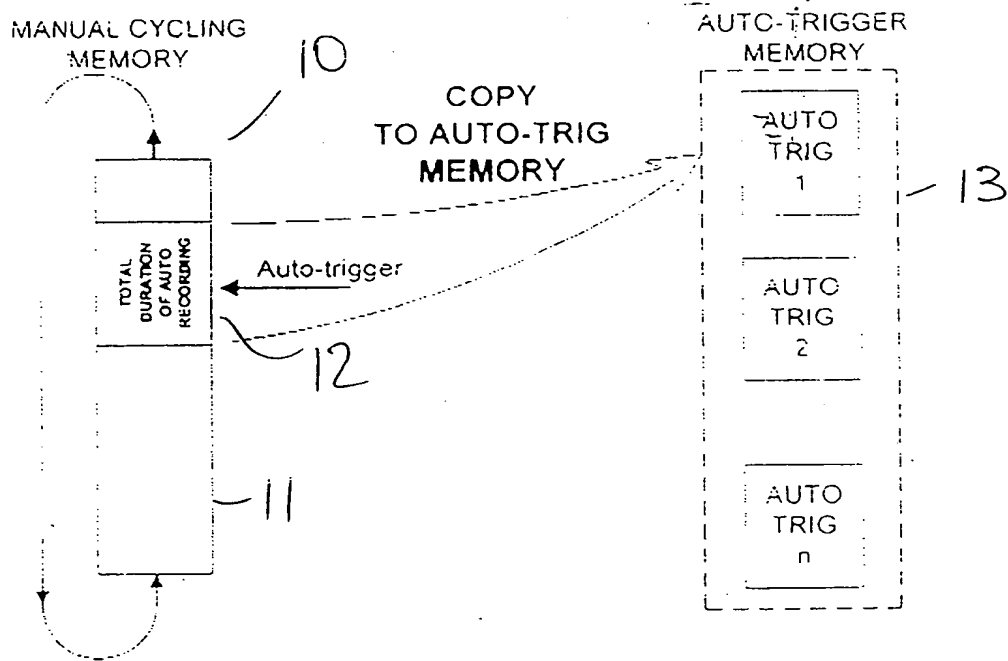RECORDING

Auto-trigger

12

AUTO
TRIG
2

11

AUTO
TRIG
n

FIG 1 MANUAL and AUTO-TRIGGER MEMORY OPERATION

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